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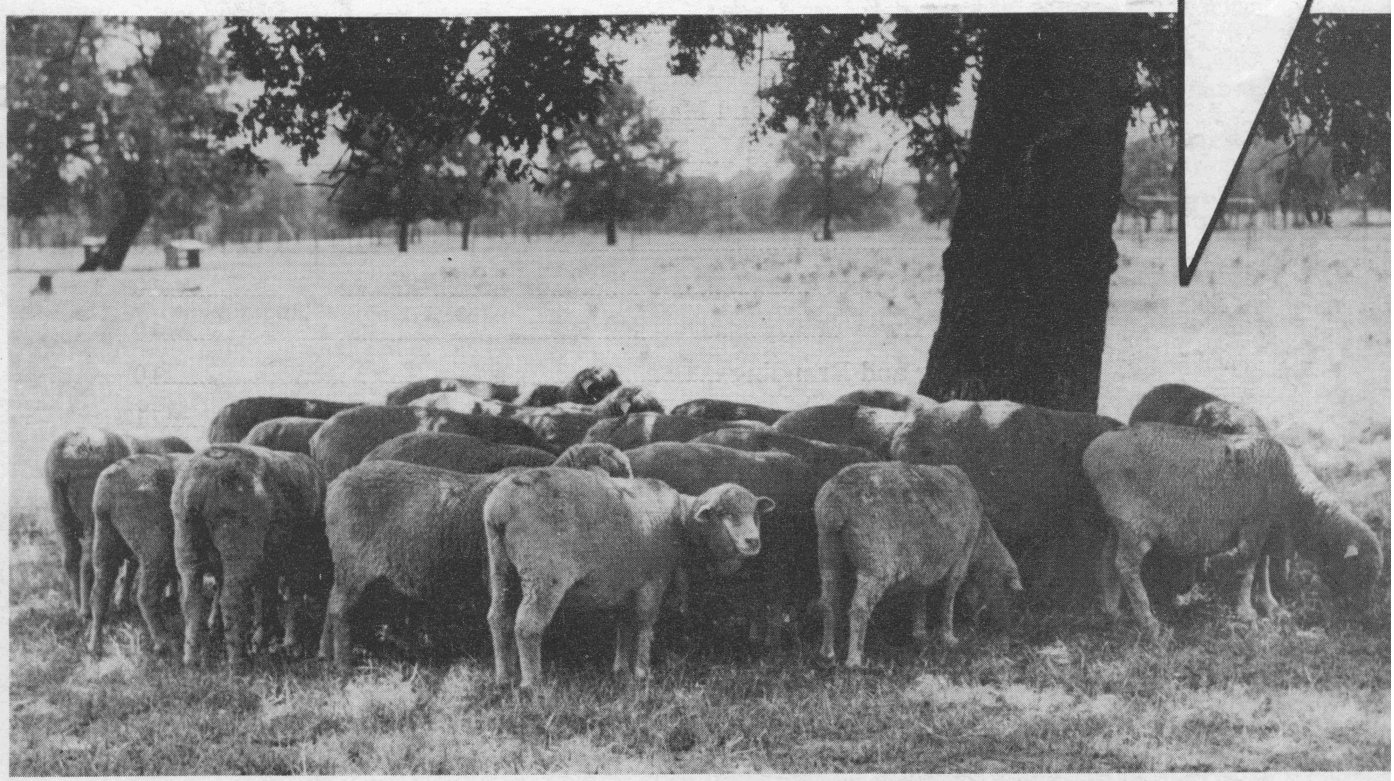
FARM SHEEP PRODUCTION

in TEXAS



TEXAS AGRICULTURAL EXTENSION SERVICE
G. G. GIBSON, DIRECTOR, COLLEGE STATION, TEXAS

Contents

Farm Sheep Production in Texas

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Introduction

TEXAS has been the leading sheep-producing state for many years. The heaviest concentration of the industry is in the southwestern part of the State—the Edwards Plateau and the Trans-Pecos areas—but there has been a general movement of the sheep into the northeastern and eastern portions of Texas in recent years.

The necessity of reducing certain crop acreages and turning more acres to grass and legumes puts an emphasis on farm animals which can subsist on roughages alone but which also may provide a profitable market for grain. Sheep can convert the tender grasses, a large variety of weeds and the usual crop residues into lamb and wool. Many farmers who make no attempt to harvest these forms of roughage can convert some of their acreage to sheep production with little additional cost.

The main requirements for a successful sheepman are having a genuine interest in the animals and providing a suitable environment for them.

Points To Consider

Before a farmer undertakes sheep production, he should consider whether it can be profitable for him. A study of the following list of advantages and problems may be helpful.

Advantages

1. A genuine interest in sheep production is the main requirement.
2. Sheep produce two crops each year—lamb and wool.
3. Sheep utilize roughages as their primary feed supply and usually do not require large amounts of purchased feeds.
4. Lambs will fatten on good pasture alone without supplemental feed.
5. Sheep production requires adequate, but not elaborate, facilities and equipment.
6. Sheep can aid in weed control.

Problems

1. Lack of interest in sheep production can keep a person from being successful.
2. Sheep are defenseless animals and must be protected from stray dogs and predatory animals.
3. Sheep are subject to both internal and external parasites. Heavy grazing on small acreages leads to greater infestations by internal parasites.
4. Tighter fencing is required for sheep than for cattle.
5. Foot troubles are likely to develop if sheep are kept on wet or marshy pastures.
6. In general, sheep require more attention than cattle.

Number of Sheep To Stock

The number of sheep that a farm will carry on a year-round grazing plan depends on the size of the pastures, the amount of rainfall, the fertility of the soil and the amount of supplemental roughage available.

Many farmers know the carrying capacity of their farms in terms of cattle. Ordinarily 5 to 7 mature sheep will replace 1 cow, depending on the size or breed of sheep. This does not mean in addition to the cattle.

It is best to start with fewer sheep than the farm can carry and grow into the proper number as experience is gained. A few good-quality ewes are more profitable than a large number of poor-quality ewes. High production per ewe of both wool and lamb is essential to a successful operation.

Types of Operation

Several types of operation have proved successful in Texas.

Some areas are particularly well suited to the production of fall and winter-born lambs (November to February). These lambs are marketed in milk-fat condition from early spring to June. The spring lamb supply generally is limited and the price usually is good. This type of operation requires the use of fine-wool ewes to obtain the out-of-season breeding necessary. Some producers prefer to use mutton-type rams, claiming that the cross-bred lamb grows faster and is more popular on the market, but this is debatable.

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A flock of good fine-wool ewes is a source of secondary income on this farm in south-central Texas.

Other areas are suited to the production of lambs born in March and April to be sold as feeders or fattened on the farm. These lambs usually reach the market in September and October. The amount of grain and roughage produced on the farm will determine whether the lambs will be fattened or be sold as feeders.

A more speculative type of sheep production is purchasing weaned lambs and fattening them in drylot or grazing them on winter-growing cereals grains or pasture. This type of operation is for experienced sheepmen. Extension Bulletin 129, "Fattening Lambs," gives more detailed information on this subject.

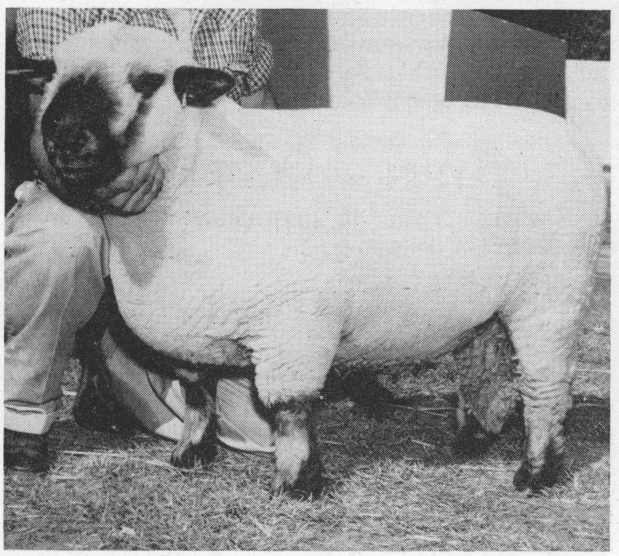
The production of registered sheep also requires previous experience for best results. A farmer should have several years of experience with commercial sheep before he enters the registered business. It is a highly specialized operation and requires closer observation, more complete records and a greater knowledge of animal breeding than other types of production.

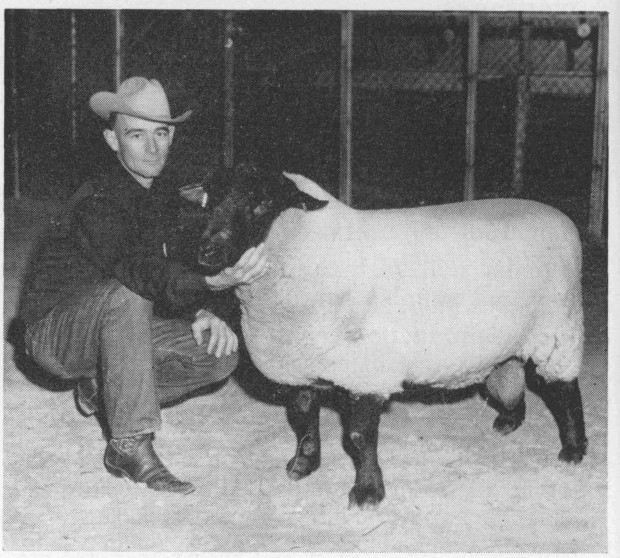
The available amount of year-round grazing also will be largely responsible for determining the type of operation which should be followed. In an area where farm sheep production is widespread, the practices in common use may help a farmer to decide on the type of sheep operation he should follow. Useful information also may be obtained from the county agricultural agents.

Types of Sheep Available

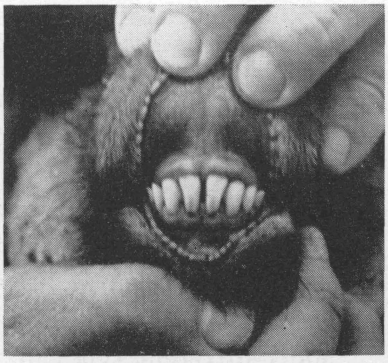
With the abundance of good breeding ewes in West Texas, it is easy to get started with a good farm flock. The central markets, auction rings and commission men are ready at all times to supply sheep to farm flock producers.

Yearling ewes, dry ewes and pairs (ewes and lambs) are available in West Texas at shear-





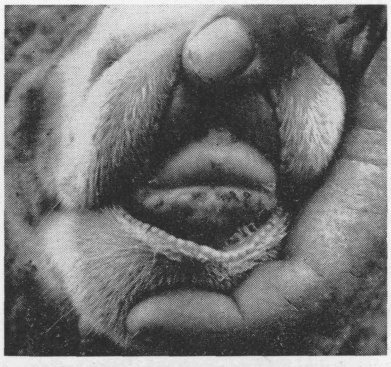
Hampshire rams (left) and Suffolk rams (right) are used extensively with fine-wool ewes to sire fast-growing market lambs.



Lamb

1-*year-old*

3-*year-old*



Smooth Mouth

The age of a sheep is determined by the number and condition of its incisor teeth:

A lamb (upper left) has eight milk teeth.

A 1-year-old (upper right) has two permanent teeth replacing its central pair of milk teeth. At 2 years of age, it has two pairs of permanent teeth and two pairs of milk teeth.

A 3-year-old (lower left) has three pairs of permanent teeth and one pair of milk teeth. At 4 years of age, it has all four pairs of permanent teeth. At 5 years of age, its teeth begin to spread and show wear, depending on the condition of the range it has grazed. Aged sheep begin to lose their teeth and are then called broken mouth.

Aged sheep continue to lose their teeth until they become smooth mouthed (lower right).

ing time. Lambs and aged ewes are available in the fall. These are the two most popular trading seasons and are suitable times for a farm flock operator to buy the sheep he needs.

The most popular type in Texas is the fine-wool sheep (Rambouillet and Delaine Merino, or crosses of these two breeds). They withstand heat, cold and drouth better than other types, and adjust readily to changes in the pasture feed supply. Therefore, it is the most practical type of sheep for producing out-of-season lambs under Texas conditions. All ages of fine-wool breeding ewes are available most any time.

The whiteface cross (fine wool crossed with the Corriedale, Columbia or Panama) and the blackface cross (fine wool crossed with the more popular mutton breeds) are types of crossbred ewes available.

The whiteface crossbreds are available in all ages, but their wool is not as uniform and, as a whole, they breed later than the fine wools.

The blackface crossbreds are available mostly as yearling ewes in the spring or as lambs in the fall. Only a few are retained as breeding ewes on West Texas ranges. Their wool is inferior to that of the fine wools or whiteface crossbreds. Blackface crossbreds us-

ually breed later than the fine wools or white-face crossbreds.

The mutton breeds, principally the Hampshire, Suffolk, Southdown and Shropshire, are not as well suited to Texas conditions as the fine wools and they require additional care. They are raised primarily to supply rams for crossbreeding and for farm flocks.

The dual-purpose breeds, mostly Corriedale and Columbia, also are less suited to Texas conditions than the fine wools. They are produced to supply rams to range producers and for farm flocks.

Selection of Breeding Ewes

Look for large, well-developed, "roomy" ewes with good conformation when selecting ewes for breeding. They should be free from wrinkles and produce a uniform fleece of staple wool (at least 2½-inch staple in 12 months). See that their teeth are in good condition and that they do not have overshot or undershot jaws. All ewes should have sound udders.

Broken-mouth ewes should not be bought unless there is an abundance of good feed or unless they can be given extra care. They usually sell at a reasonable price, but a good feed supply is necessary with old ewes.

Equipment Needed

Shelter is essential for the winter lambing of Texas farm flocks. It may be in the form of shed or barn space or a heavily wooded area. The main thing is to protect the flock against cold rains.

A shed open to the south and providing about 12 square feet per ewe usually gives adequate protection. The shed should be well drained and free from draft.

Salt box, self feeder and combination grain and hay trough are important pieces of equipment.

Lack of adequate fencing is one of the main problems facing many Texas farmers who start farm flocks. A good barbed-wire cattle fence can be made sheep-proof by adding 3 or 4 strands of barbed wire, placed 4 to 5 inches apart, on the lower section of the fence. Texas sheep are accustomed to fences and are more easily confined than is usually thought. If more elaborate fencing is desired, it can be constructed of 35-inch mesh wire with 2 or 3 strands of barbed wire above the mesh. This type of fence will confine all farm animals.

Many different types of feed troughs and racks can be used for supplemental feeding of sheep, but a trough that is suitable for both grain and hay is the most practical. A large ewe in advanced pregnancy should be allowed 24 inches of trough space. Self-feeders are used by many sheepmen to fatten lambs and to feed pregnant ewes. Sheep require less trough space at self-feeders; approximately three times as many sheep can be handled with the same trough space as when they are hand fed.

Panels 10 to 20 feet long are some of the most practical equipment a sheepman can possess. They are used to construct temporary pens of various sizes and to crowd sheep into places they do not want to go.

Hinged panels can be used to construct individual pens large enough for 1 or 2 sheep. These are useful at lambing time and for confining sick animals.

Additional information on sheep equipment is given in USDA Farmers' Bulletin 810, "Equipment For Farm Sheep Raising," and USDA Agriculture Handbook 90, "Sheep Shelters and Equipment for the Southern States."

Calendar of Operations

Breeding Season

The usual breeding season of sheep is the fall and winter, with the lambs coming in the spring. Under Texas farm conditions, a spring and summer breeding season with the lambs coming in the fall and winter is preferable. This gives the lambs a chance to reach market weight before the onset of hot, dry weather, thus avoiding the dangers of stunting and parasitism. Fine-wool ewes are recommended for Texas because they will breed out-of-season more consistently than other types.

The gestation period of the ewe is about 5 months, varying from 142 to 152 days.

Usually 3 rams are needed to breed each 100 ewes. Under good farm flock conditions, one vigorous ram will breed 40 to 50 ewes. Well-developed ram lambs may breed about 20 ewes.

Rams should be conditioned for the breeding season by supplemental feed 3 to 4 weeks before turning them in with the ewes. This supplement may be cottonseed cake, grain cubes or good-quality alfalfa hay.

It is good management to flush the ewes for out-of-season breeding. To do this, put the ewes on a fresh pasture that has been rested or feed them ¼ to ½ pound of supplement per head daily for 3 to 4 weeks before breeding. Flushed ewes should come in heat sooner and are more likely to be settled at first service than when flushing is not practiced.

Ewes should not be allowed to become too fat before the breeding season. Excessive fatness impairs their breeding ability.

During the breeding season, ewes come in heat about every 17 days, varying from 14 to 19 days in some cases. The heat period lasts 17 to 43 hours, but averages about 30 hours. Ovulation usually occurs late in the heat period.

Rams should be left with the ewes 40 to 60 days. Some ranchmen put the rams with the ewes in June and July to obtain as many fall lambs as possible. They put the rams back with the ewes again in September to catch those that did not breed out-of-season.

Hormones secreted by the ductless glands control the reproductive processes. Claims have been made that some hormone preparations stimulate breeding for the production of out-of-season lambs or even two lamb crops per year, but there are no records to support most of these claims. As far as is known at this time, hormones are more likely to hinder rather than help obtain out-of-season lambs.

Internal Parasite Control

Internal parasites are a major problem in most of the farm-flock areas of Texas. A pale, watery color of the membranes around the eyes and lips, a swelling under the jaws, diarrhea or looseness of the bowels and the eating of dirt may indicate the presence of these parasites.

A suggested program for the control of internal parasites is to drench the sheep with phenothiazine in the spring when things begin to green up and to drench them again in the fall. However, do not drench ewes within 30 days of lambing. In some sections where parasitism is especially severe, extra drenchings will be necessary. In addition, a phenothiazine-salt mixture (9 parts of salt to 1 part of phenothiazine) should be kept before the ewes at all times.

To drench sheep, use one hand to insert the drench gun at the side of the animal's mouth in the area between the incisor teeth and molars,

Drench gun is inserted at the side of the sheep's mouth with the right hand; left hand shuts off the sheep's breathing and forces it to swallow.

and clamp the other hand over the animal's nose to shut off its breathing and force it to swallow. If the drench gun is inserted at the front of the sheep's mouth, the animal may spit out the drench and thus require further dosing.

Lambing Time

Most of the ewes in Texas are lambed on range or pasture. This means that they are placed in a pasture with access to plenty of feed and clean water, and nature is allowed to take its course. Over a period of many years Texas sheep have been selected for ease of lambing, and few death losses occur.

To help prevent losses from pregnancy disease, encourage well-fed ewes in good condition to take considerable exercise for at least 1 month before lambing. Ewes will get more exercise if they are forced to walk a considerable distance to water.

Special care and attention should be given ewes at lambing time under farm-flock conditions. They should be given every opportunity to lamb without help. When it becomes apparent that the ewe is unable to deliver the lamb by herself, there is still ample time to assist. The beginner should seek the help of a veterinarian or experienced sheepman.

The flockmaster may transfer lambs from ewes that have died to ewes that have lost their lambs and transfer a twin from one ewe to another. This usually can be done by confining a ewe with a lamb in an individual pen for several days, but it also may be necessary during this time to hold or tie the ewe while the lamb nurses.

The percentage lamb crop affects the profit of sheep production. With good care and management, the lamb crop should be well over 100 percent of the farm flock.

Care of Newborn Lamb

A strong, vigorous lamb will stand up and nurse 15 or 20 minutes after birth, but weak lambs may need help. Confine weak lambs with their mothers until they gain sufficient strength to follow their mothers.

Weak or chilled lambs should be warmed near a stove or put in warm water and then dried. An effective warmer can be made by hanging an electric light bulb in a covered barrel or box, or the lamb can be placed in a corner close to a large light bulb.

When ewes are lambed in corrals or barns, there is danger of navel ill or navel infection. Dip the navel cord of these newborn lambs in tincture of iodine by tipping the bottle against the lamb's body. This helps dry up the navel cord and prevent navel infection.

Care of Ewe after Lambing

Ewes should be fed grain sparingly for a few days after lambing to prevent the production of more milk than the lambs can handle. Ewes on small-grain pasture or other succulent grazing also may produce too much milk. In such cases, the udders become large and swollen, and it is necessary to milk-out the ewes. Some ewes develop infection in the udders. A few antibiotics have proved effective against such infections. The local veterinarian should be called to treat severe udder infection.

If ewes are not producing sufficient milk, they should be given more feed. Grain mixtures, high-quality alfalfa hay and succulent feed, such as silage, are good supplements for lactating ewes.

Feed Requirements

At times it may be necessary to maintain ewes in the feedlot or in small traps. The question of how much to feed them is difficult for a farmer to determine without experience. Feeds vary in quality, ewes vary in condition and the weather varies.

Legume hay usually contains enough nutrients to be the sole maintenance feed needed. As long as a ewe gets 1¼ pounds of good legume hay or ⅓ pound of cottonseed meal or cake, along with a reasonable fill of roughage, she should maintain her weight. One pound per ewe of grain cubes containing 18 to 20 percent protein in addition to roughage also may be used. The judgment of the feeder will determine whether the ewes need more or less feed.

Temporary pastures can be used to supplement native pastures. Small grain or small grain and legume fields provide valuable grazing for sheep in the fall and winter and require no supplement. Sudan pasture is an excellent source of grazing in the spring and summer. Irrigated pastures supply between-season grazing in some areas.

In emergencies it may be necessary to feed ewes whatever is available. Pricklypear can be singed or chopped in a forage cutter and fed at the rate of 7 pounds per ewe, with ¼ to ⅓ pound of cottonseed meal.

Liveoak brush can be cut and supplemented with ½ to ¾ pound of cottonseed meal. Sheep readily eat liveoak leaves.

Cottonseed hulls fed with ½ to ¾ pound of cottonseed meal per head daily are a good maintenance feed for ewes.

A mixture of half cottonseed hulls and half ground cotton gin trash can be fed with a protein supplement. Mixing cottonseed hulls with gin trash improves its palatability.

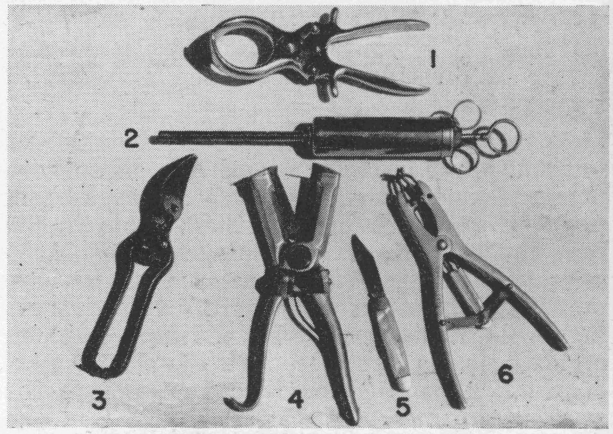
In some areas sheep may be fed mistletoe pulled from the trees with hooks. Mistletoe contains about 9 percent crude protein and is very palatable to sheep.

Feed molasses often is available and cheap. It can be fed free choice in a trough by placing a float on top of the molasses. One-inch holes should be bored in the float so that the sheep can lick the molasses through the holes. Since molasses is low in protein, it should be used with a protein supplement.

A full discussion of many other feeds that can be used for maintenance is given in Extension Bulletin 218, "Emergency Feeding of Livestock."

Docking, Castrating and Marking

There are many methods for docking and castrating lambs. The ones used will depend mostly on which the flockmaster prefers.



Some of the instruments that may be used to perform the necessary operations on the lambs are 1) burdizzo; 2) drench gun; 3) pruning shears; 4) the all-in-one; 5) pocket knife; and 6) elastrator.

Lambs should be castrated and docked as soon as they are strong enough, usually at 7 to 10 days of age. In general, the older the lamb is at marking time, the more severe the shock.

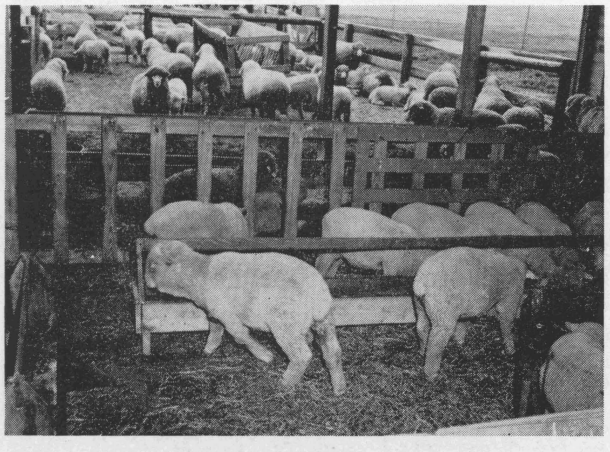
Lambs should be put on a good pasture immediately after they are marked. If they are allowed to remain around dirty lots and pens, they are apt to pick up an infection.

Sanitation is essential in any surgery. All instruments should be cleaned thoroughly before use and be dipped in a strong disinfectant after each use. A good disinfectant is 1 tablespoon of lysol to 1 pint of water.

In docking, remove the tail between the third and fourth joints from the root of the tail. A good marker is where the two folds of skin on either side of the anus leave the tail. The person holding the lamb should pull the skin on the tail toward the root so that the skin will come back over the stump after the tail is cut. If the skin is pulled away from the root of the tail, the bone will be exposed and will take a long time to heal.

Probably the quickest and most popular method of docking is to cut off the tail with a sharp knife or with a pair of special docking and castrating shears. Wounds made with these instruments heal quickly.

Other methods of docking can be used to prevent bleeding. The tail can be seared off with a hot, dull iron or with a pair of docking tongs without loss of blood. However, seared wounds heal slowly and it may be troublesome to heat the iron. The tail can be crushed through with a burdizzo and then the skin cut with a knife. The crushing effect of the burdizzo is supposed to prevent some of the bleeding, but this method is slow because it involves the use of two instruments: A special rubber band can be placed on the tail to cut off circulation, and the tail will drop off in about 2 weeks. The rubber band is painful to the lamb for 30 to 40 minutes, and the only advantage for this method is that it is bloodless.



A creep permits the lambs to enter and obtain supplemental feed but excludes the ewes.

There also are several ways to castrate ram lambs. Surgery is the most common. In using this method, cut off the lower ⅓ to ½ of the scrotum and pull out the testicles while pressing the fingers of one hand firmly against the lamb's body at the base of the testicle cords. The testicle cords can be pulled out by gripping them with the thumb and forefinger, or with special castrating shears that have a serrated edge. Surgery is probably the fastest method of castration. Its main disadvantage is that lambs occasionally die from bleeding, rupture or infection.

Two types of bloodless castration may be performed. In one type, a rubber band is placed on the scrotum above the testicles with a special instrument. It takes about 2 weeks for the scrotum to drop off. Unless the rubber bands are applied carefully, testicular material may be left above the bands and the animal will become staggy in appearance. This will result in price discrimination at market time.

In another method of bloodless castration, a burdizzo is used to crush the cords above the testicles without cutting into the scrotum. When the burdizzo is applied properly, the testicles will resorb while the scrotum remains intact. The main objection to this method is that the burdizzo may miss the cords or be applied too low so that testicular material remains above the crushed area. There also is danger of the burdizzo becoming sprung so that it no longer crushes the cords.

Ear marking usually is done at the same time the lambs are castrated and docked. Ear marking may serve two purposes—to identify the owner's sheep and to distinguish wethers from ewes. Many different ear marks are used, a number of which are registered in the county offices.

Creep Feeding Lambs

Creep feeding is used to fatten lambs for market or to develop them for breeding.

The creep is an area that is fenced so that the lambs can enter, but the ewes cannot. The openings in a creep are usually about 8 inches wide and 15 to 18 inches high, but these openings should be adjustable.

A good developing feed to use in a creep for lambs is whole oats and good fattening feeds are corn and sorghum grain. It is not necessary to grind grain for lambs since they chew their food well.

Lambs usually start eating in a creep when only a few days old. Older lambs are more difficult to start in a creep.

Creep feeding of fall and winter lambs usually proves profitable since they gain faster and put on a firmer fat than when hand fed. Creep feeding may mean the difference between producing a feeder and a fat lamb.

Weaning Lambs

Lambs should be weaned when they are 5 to 6 months old. Early spring lambs probably will be sold off their mothers, and weaning will not be necessary.

Many sheepmen save a small trap or pasture for weaning. This gives the lambs a good feed supply so that they continue to do well without the ewes.

If the ewes can be moved to an area of rather scant feed for about 2 weeks it will help stop milk production, and less udder trouble will occur.

Tagging

Tagging is shearing the wool from inside the hind legs, around the udder, the tip of the dock and the face of the sheep 2 to 3 months before shearing time.

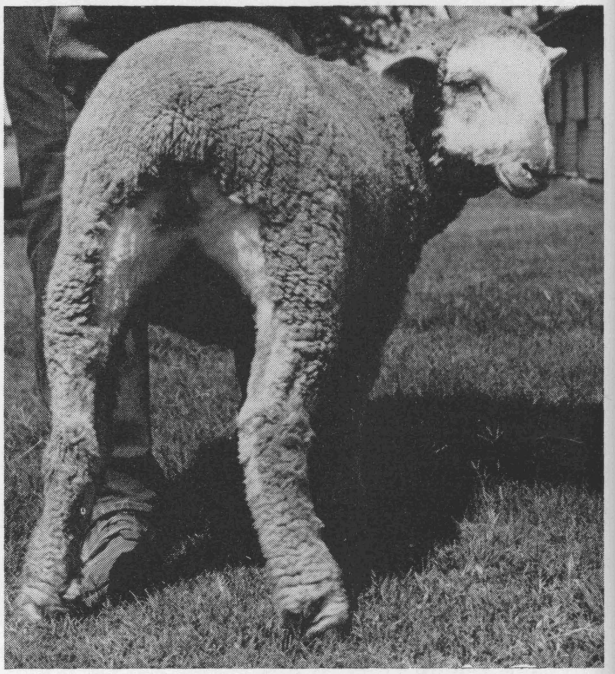
This operation makes possible a much cleaner clip of wool at shearing time, and it helps to prevent fleece worms before shearing time in the spring. When ewes are tagged before lambing, it makes lambing easier and more sanitary.

In Texas, Sheep usually are tagged in December and January. In some areas it may be done somewhat later.

Trimming Feet

Under farm-flock conditions, foot trimming may be necessary to help prevent foot ailments. Pruning shears are the best instrument for foot trimming. Avoid trimming down to the quick since this will cause the feet to bleed and leaves an opening for infection.

Foot trimming is necessary in many farm-flock areas. Here, the operator uses pruning shears.



Tagging is essential for proper preparation of the wool clip. In areas of lush grazing it may be desirable to remove more wool from the dock than is shown here.

Culling Ewes

Soon after the lambs are weaned, the ewes should be culled. Ewes that have a spoiled udder, that have not raised a lamb and those with unsound or broken mouths should be removed from the flock.

In some cases it may be profitable to cull the farm flock on a wool production basis. Whether sheep are removed because of low wool production probably will depend on the type of ewes in the flock. It definitely pays to cull fine-wool ewes on wool production.

Shearing and Branding

The time to shear depends primarily on the location of the farm. Shearing starts in Texas as early as February and continues until mid-June. Sheep that are shorn in February usually are shorn again in late August or early September. Twice-a-year shearing is confined mostly to South and Southwest Texas. Most of the shearing is done in April and May.

Provide shearing boards and a clean place for the shearing operation. Make the shearing board 6 feet wide with the length in multiples of 4, or a shearing floor 8, 12 or 16 feet long and 6 feet wide. These dimensions provide a space 4 feet by 6 feet for each shearer to use.

A trip board should be provided with each shearing board. The trip board is a 2″ x 2″ placed on the outer edge of the shearing board. It keeps dirt off the floor and helps throw the

sheep when the animal is dragged onto the shearing floor.

The sheepman also is expected to provide a sacking frame in which to hang the wool bags.

The fleece should be rolled with the flesh side out, tied with paper fleece twine and packed in the regular Texas wool bag.

Store the wool in a clean, dry place or take it to a wool warehouse.

For detailed information on preparing wool for market, see Extension Bulletin 237, "Preparing Wool for Market."

After shearing, brand the ewes with a soluble sheep-branding paint. Many branding fluids of this type are on the market.

Water

A clean water supply is necessary. Sheep require from a quart to over a gallon of water per day, depending on the moisture content of pasture vegetation, weather conditions and the amount of dew. Sheep prefer running water if available.

Shade

Sheep will thrive better if they have access to shade during the heat of the day. If no natural shade is available, a brush arbor or some other type of shade should be provided.

Marketing

Fort Worth, one of the largest sheep markets in the United States, is within easy reach of most of the Texas farm-flock area. It is a good market for both fat and feeder lambs.

Another good market is at San Antonio, which also is convenient for much of the farm-flock area.

Many local auctions also have developed excellent sheep and lamb markets. Some attract buyers from the large meat packing companies.

A number of order buyers will buy sheep and lambs at the ranch or farm. Some handle only feeder and stocker sheep while others also handle fat animals. Many feeder lambs are contracted for later delivery, when most of them will be moved north to feedlots.

Wool can be marketed through one of the many Texas wool warehouses. A number of these warehouses will buy the wool outright while others handle it on a commission basis. A few of the warehouses practice grading and will market wool on a graded basis when requested.

Suggested Reading

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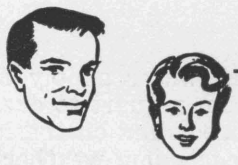

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